STATE FOREST LAND ENVIRONMENTAL CHECKLIST

Purpose of Checklist:

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decided whether an EIS is required.

Instructions for Applicants:

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can. Questions in italics are supplemental to Ecology's standard environmental checklist. They have been added by the DNR to assist in the review of state forest land proposals. Adjacency and landscape/watershed-administrative-unit (WAU) maps for this proposal are available on the DNR internet website at http://www.dnr.wa.gov under "SEPA Center." These maps may also be reviewed at the DNR regional office responsible for the proposal. This checklist is to be used for SEPA evaluation of state forest land activities.

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later. All of the questions are intended to address the complete proposal as described by your response to question A-11. The proposal acres in question A-11 may cover a larger area than the forest practice application acres, or the actual timber sale acres.

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Use of checklist for nonproject proposals:

Complete this checklist for nonproject proposals, even though questions may be answered "does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NON PROJECT ACTIONS (part D).

For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer" and "affected geographic area," respectively.

A. BACKGROUND

1. Name of proposed project, if applicable:

 Timber Sale Name:
 Agreement #:

 Old Stock
 30-085023

 Enterprise
 30-085024

 Sulu
 30-085000

- Name of applicant: Washington State Department of Natural Resources
- Address and phone number of applicant and contact person:

Pacific Cascade Region 601 Bond Road PO Box 280 Castle Rock, WA 98611-0280 Phone: (360) 577-2025

Contact Person: Marcus Johns

- Date checklist prepared: 6/8/09
- Agency requesting checklist: Washington State Department of Natural Resources
- Proposed timing or schedule (including phasing, if applicable):

a. Auction Date: 2/25/2010

b. Planned contract end date (but may be extended):

Old Stock 10/31/2010 Enterprise 10/31/2010 Sulu 10/31/2010

c. Phasing: N/A

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

Yes.

Timber Sale

a. Site preparation:

Pile and burn slash as needed. Aerial herbicide applications targeting vine maple and red alder may be done to minimize competition with conifer species on all units.

b. Regeneration Method:

Hand plant with native conifer species.

c. Vegetation Management:

Vegetation management needs will be assessed from plantation ages three to eight. Vegetation control activities will occur as needed.

d. Thinning:

Pre-commercial thinning needs will be assessed at approximately 15 years of age for the plantations. Commercial thinning potential will be assessed at approximately 25 years.

Roads: Roads remaining at the termination of the sale will be used for future forest management activities. Road maintenance, periodic ditch and culvert cleanout will occur as necessary.

<u>Rock Pits and/or Sale:</u> Rock will be removed from the Lowbank & Chaz Quarry located in Section 15 & 8 respectively of Township 17N Range 04 west W.M. The Lowbank Quarry will be used for future road construction activities associated with forest management operations.

Other: Landing slash piles may be burned following harvest activities. Firewood salvage may occur after harvest activities.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

□303 (d) – listed water body in WAU: □temp □sediment □completed TMDL (total maximum daily load): In the Porter Creek
WAU, 303(d) waters were identified from data taken in 1998. The map dated 2008 provided by DOE at their web site
(http://apps.ecy.wa.gov/wqawa/viewer.htm) no longer identifies the streams as 303(d) listed for the Porter Creek WAU.
Landscape plan:
Watershed analysis:
Interdisciplinary team (ID Team) report:
⊠Road design plan: Available at Pacific Cascade Region office.
₩ildlife report:
Geotechnical report:
○ Other specialist report(s): Site Protection Plan
Memorandum of understanding (sportsmen's groups, neighborhood associations, tribes, etc.):
Rock pit plan:
Other: State Soil Survey; Final Habitat Conservation Plan (September 1997), Forest Practice Rules, Policy for Sustainable
Forest Implementation (June 2006), Special concerns report (P&T), Riparian Forest Restoration Strategy. All available at th
Pacific Cascade Region office

- Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain. None known
- 10. List any government approvals or permits that will be needed for your proposal, if known.

⊠HPA #103081-1 ⊠Burning permit □Shoreline permit □Incidentaltakepermit1168andPRT8125121□FPA#Enterprise: 2920218, Sulu: 2920219, Old Stock: 2920220

- 11. Give brief, complete description of our proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include specific information on project description.)
 - a. Complete proposal description:

This proposal is a variable retention timber harvest that will occur under the guidelines of the DNR State Lands HCP and the Policies for Sustainable Forests. The proposal includes the following elements:

- Riparian Management Zones
- Wetland Management Zones
- Leave Trees
- Road Construction
- Rock Pit Development
- Rain on Snow

Sale of Timber

Estimated total volume removed will be 10,000 MBF.

Unit	Proposal Acres	RMZ/WMZ Acres	Wildlife Reserve Acres	Existing Road Acres	Sale Acres	Leave Tree Clump Acres	Internal Road R/W Acres	Harvest
name	gross			within unit	*8=leave trees	clumped acres	for thins	net
Old Stock	90	40			50	4		46
Enterprise Unit 1	72	23		3	46	2		44
Enterprise Unit 2	26	15			11			11
Enterprise Unit 3	95	25		1	69	4		65
Sulu Unit 1	135	32		3	100	9		91
Sulu Unit 2	131	35		6	90	7		83
Totals	549	170		13	366	26		340

b. Timber stand description pre-harvest (include major timber species and origin date), type of harvest, overall unit objectives.

Stand Description

Old Stock (50 acres): This stand originated in 1948 and 1955 and has a mixed overstory of Douglas-fir, western hemlock, western red cedar and red alder. These species are occurring intermixed in the stand with little mid and understory. Sword fern and salal make up the ground cover.

Enterprise:

Unit 1 (46 acres): This stand was established in 1958 and consists of a Douglas-fir overstory with little to no mid and understory. This unit was thinned 9 years ago, removing much of the overstory canopy. The forest floor consists of sword fern, salal and western hemlock where openings have been created from the thinning.

Unit 2 (11 acres): This stand was established in 1958 and consists of a Douglas-fir overstory with little to no mid and understory. The forest floor consists of sword fern and salal.

Unit 3 (69 acres): This stand was established in 1954 and consists of a Douglas-fir overstory with scattered western hemlock. There is little to no mid and understory. This unit was thinned 9 years ago, removing much of the overstory canopy. The forest floor consists of sword fern, salal and western hemlock where openings have been created from the thinning.

Sulu:

Unit 1 (100 acres): This stand was established in 1954 and consists primarily of a Douglas-fir overstory with some western hemlock scattered throughout. A few wet areas are growing primarily a red alder overstory. There is not much structural diversity in the unit with an absent mid and understory. The forest floor consists of sword fern, salal, salmonberry and western hemlock. This stand was thinned nine years ago removing a portion of the overstory stand. The openings created from this thinning have resulted in a thick ground cover of western hemlock advanced regeneration.

Unit 2 (90 acres): This stand was established in 1955 and consists of a Douglas-fir/western hemlock overstory, with alder in the stream adjacent draws. Stand structure, forest floor cover and history are the same as Unit 1 above.

Type of Harvest

Variable Retention Harvest: approximately 10,000 MBF of timber will be removed.

Overall Unit Objective

The primary objective of these timber sales is to provide financial benefit to the trust beneficiaries and regenerate new stands of timber. In addition, these stands will be managed to protect site integrity and productivity combined with maintaining water quality of the adjacent streams.

Road activity summary. See also forest practice application (FPA) for maps and more details.

Type of Activity	How Many	Length (feet) (Estimated)	Acres (Estimated)	Fish Barrier Removals (#)
Construction		317	NA	
Reconstruction		7,912	TOTAL DESIGNATION	
Abandonment				
Bridge Install/Replace				
Culvert Install/Replace (fish)				
Culvert Install/Replace (no fish)				

- 12. Location of proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. (See timber sale map available at DNR region office, and/or color landscape/WAU map on the DNR website http://www.dnr.wa.gov under "SEPA Center.")
 - a. Legal description: T17N R05W S12 T17N R04W S5, 7, 8, 9, 16 & 17
 - b. Distance and direction from nearest town (include road names):

The proposal area is approximately 4 miles northeast of Porter. From US 12 (at milepost 25.5) turn east on Mox Chehalis Rd and follow for 1.4 miles. Turn east on Ray Rd and follow for 0.7 miles where it changes to the A-Line. Continue on the A-Line for another 1.3 miles to the B-Line junction. Turn right onto the B-Line and follow for 1 mile to the B-0400 junction. Take a soft right onto the B-0400 and follow for 1.8 miles. Old Stock is located approximately 1.8 miles up the B-0400 road. Bear right onto the C-1000 off the B-0400 for 2.3 miles to the C-Line. Head east on the C-Line for 3.8 miles to the C-3000. Head west on the C-3000 for 1.5 miles to Enterprise Unit 1. Enterprise Unit 2 is adjacent to Unit 1 along the C-3000. Follow the C-3000 past Unit 2 for 1.3 miles to Enterprise Unit 3 off the C-3400. Continue on the C-3000 for 0.3 miles to the C-3500. Bear left on the C-3500 for 0.4 miles to Sulu Unit 1. Continue on the C-3000 past the C-3500 junction for another 0.7 miles to Sulu Unit 2.

c. Identify the watershed administrative unit (WAU), the WAU Sub-basin(s), and acres. (See also landscape/WAU map on DNR website http://www.dnr.wa.gov under "SEPA Center.")

WAU Name	WAU Acres	Proposal Acres	Sub-basins
Porter Creek	25,452	90	5
Porter Creek	25,452	459	6

Old Stock is in sub-basin 5. Sulu and Enterprise are both in sub-basin 6.

13. Discuss any known future activities not associated with this proposal that may result in a cumulative change in the environment when combined with the past and current proposal(s). (See digital ortho-photos for WAU and adjacency maps on DNR website http://www.dnr.wa.gov under "SEPA Center" for a broader landscape perspective.)

The following tables are estimated summaries of past and future activity on DNR-managed land and privately managed land in the WAU (information is based off of Forest Practices applications that have been approved in the last seven years compiled by the Department's GIS database). No attempt was made to predict future timber harvest on private ownerships within the WAU. The source of this information only provided the acreage on the WAU level. WAU reports were requested and generated August 26, 2008.

Porter Creek WAU	WAU ACRES	ACRES OF EVEN-AGED HARVEST WITHIN THE LAST SEVEN YEARS	ACRES OF UNEVEN-AGED HARVEST WITHIN THE LAST SEVEN YEARS	PROPOSED EVEN-AGED HARVEST IN THE FUTURE	PROPOSED UNEVEN-AGED HARVEST IN THE FUTURE
DNR MANAGED LAND	23,711	5,657	0	1,928	0
PRIVATE OWNERSHIP	1,741	339	0	Unknown	Unknown
TOTAL	25,452	5,996	0	1,928	0

To reduce the possibility for an increased chance of environmental impact, several mitigative measures will be included in this proposal. Haul routes have been evaluated for potential impact to the environment. To assure runoff from roads and sediment delivery is controlled during the hauling of forest products, multiple cross drains, sediment ponds, and other structures or methods will be used to disconnect ditch water from streams. Proposed roads will be located and designed to avoid diversion and concentration of runoff and discharge onto or above potentially unstable slopes. Ditch water will be dispersed onto the forest floor in stable areas for filtering prior to entering watercourses. New road construction will be concentrated on stable ridge top locations and engineered to a higher standard than road construction in the past. To ensure soil protection, soils exposed during road construction will be seeded with grass and/or straw will be applied and where necessary, other restoration measures may be applied to stabilize soils and enhance vegetation growth.

Furthermore, to provide structural diversity for wildlife habitat, maintain fish habitat, and limit possible effects to aesthetic appearances, individual leave trees and leave tree clumps have been identified for retention. RMZs will be maintained along type 3 streams and type 4 streams. The RMZs will help reduce potential sedimentation, provide a source of large woody debris (LWD) to streams, maintain shade, reduce the aesthetic impact, and provide habitat for wildlife. An additional 100 foot wind buffer was placed along the type-1 stream buffer on the Old Stock TBS. The heavy western hemlock overstory and location of the stream called for a larger buffer to manage for the possibility of wind blow down following the harvest. Wildlife reserve and legacy trees will be retained to provide structural diversity for wildlife habitat. In addition, these stands will be managed to maintain site productivity and water quality of adjacent streams.

Logging operations will be conducted in such a manner as to avoid severe ground disturbance. RMZs, leave trees and the 30-foot Equipment Limitation Zone on the type 5 streams will help limit ground disturbance, provide filtration, and protect stream integrity. Lead end suspension will be required on all cable settings. Ground based yarding will be restricted to dry conditions in areas where yarding, slope stability or soil erosion will impact water quality. Operations shall be suspended and sediment control devices required, when necessary, to minimize sediment delivery to streams. The units will be planted upon completion of logging. Ground tracked yarding may be suspended during saturated soil conditions, to prevent soil damage and erosion. RMZs will be left to protect water quality, maintain stream integrity, and maintain slope stability; on all type 1, 3 and 4 streams (see B.3.a.1.b.).

B. ENVIRONMENTAL ELEMENTS

1.	Earth

a.	General d	escription of the site (check one):
	□Flat, [Rolling, Hilly, Steep Slopes, Mountainous, Other:
	1)	General description of the WAU or sub-basin(s) (landforms, climate, elevations, and forest vegetation zone).
		The Porter Creek WAU contains hilly topography with steep slopes. Elevations range from 25 feet to 2,662 feet. Rainfall averages 60 inches per year. The forest vegetation zone is western hemlock. The major timber type is Douglas-fir with some components of western hemlock and western redcedar in th uplands as well as red alder in the draws.

Identify any difference between the proposal location and the general description of the WAU or sub-basin(s).

The proposal fits the general WAU descriptions above.

- b. What is the steepest slope on the site (approximate percent slope)? 70%
- c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland. Note: The following table is created from state soil survey data. It is a roll-up of general soils information for the soils found in the entire sale area. It is only one of several site

assessment tools used in conjunction with actual site inspections for slope stability concerns or erosion potential. It can help indicate potential for shallow, rapid soil movement, but often does not represent deeper soil sub-strata. The actual soils conditions in the sale area may vary considerably based on land-form shapes, presence of erosive situations, and other factors. The state soil survey is a compilation of various surveys with different standards.

State Soil Survey #	Soil Texture	% Slope	Acres	Mass Wasting Potential	Erosion Potential
0665	Silt Loam	65-90	15	High	High
0664	Silt Loam	30-65	304	Medium	Medium
0663	Silt Loam	8-30	19	NA	Low
4242	Silt Loam	30-65	17	Medium	Medium
3851	Very Cobbly Loam	30-65	11	Medium	Medium

- d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.
 - 1) Surface indications:

There are surface indications of unstable slopes within and adjacent to the proposal areas and mainly occur as over-steepened stream banks with exposed mineral soils. There was no evidence of incised inner gorges, bedrock hollows or additional identifiers of unstable features such as split trees or cracks in the ground surface.

Is there evidence of natural slope failures in the sub-basin(s)?
 No

 ∑Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:

There is evidence of slope failures within the sub-basin. These are generally associated with slopes greater than 60% within hollows that extend up to the mid-slope and occur most often within the Riparian Management Zones, lower slopes of the main draws, and headwalls at the top of steep draws.

3) Are there slope failures in the sub-basin(s) associated with timber harvest activities or roads? □No ∑Yes, type of failures (shallow vs. deep-seated) and failure site characteristics: Associated management activity:

A slide which occurred in the RMZ of the Old Stock TBS was likely associated with an orphaned stream adjacent logging road. The slide was shallow and occurred just below the old road grade and can be attributed to poor road location and improper drainage.

4) Is the proposed site similar to sites where slope failures have occurred previously in the sub-basin(s)?
□No ⋈ Yes, describe similarities between the conditions and activities on these sites:

The proposal has some slopes that range between 65-70%, which is similar to those that have failed in other portions of the sub-basin. These slopes will be cable logged and ground disturbance will be minimal. No unstable features such as convergent headwalls, bedrock hollows or inner gorges were identified on the site.

5) Describe any slope stability protection measures (including sale boundary location, road, and harvest system decisions) incorporated into this proposal.

The majority of the roadwork on this proposal will be improvements to existing roads (7912 feet), with only a minor amount of new road construction (317 feet). This new road construction will occur on the ridge top portion of the Old Stock TBS. Cross drain culverts and ditchouts will be utilized to minimize the potential for mass wasting and slope failure. Ground based harvest systems will not be allowed on slopes over 35%. Cable settings will require lead end suspension. The 15 acres listed in the above table identified as having a high mass wasting and erosion potential are located on the north section of the unit adjacent to the RMZ. This area will be cable yarded with minimal ground disturbance. Leave trees were also located in this area where possible to reduce erosion potential.

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill. *Approx. acreage new roads:* **0.1** *Approx. acreage new landings:* **1** *Fill source:* **Native material**

Grading will occur for new road construction and reconstruction. Material will be native soil from the new road construction location or rock from the Chaz and/or Lowbank Quarries. Ballast and surface rock will come from a commercial source.

Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Yes, minimal erosion may occur as the result of road construction, road use and logging operations.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? Approximate percent of proposal in permanent road running surface (includes gravel roads):

Approximately 1% of the proposal will be covered with impervious surfaces (gravel roads).

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any: (Include protection measures for minimizing compaction or rutting.)

Surface runoff will be collected in well-defined ditches that are clear of debris and fully functional. Runoff will flow into culverts and be discharged onto the forest floor for filtration. Landings will be positioned in locations to help divert felling and yarding away from flowing waters. Yarding may be suspended when soil rutting exceeds four inches. Any and/or all operation(s) of this sale may be temporarily suspended when there is the possibility of sediment being delivered to any flowing water tributary. No ground based equipment operation will be permitted from September 30 to May 1 unless authorized by the Contract Administrator. Equipment use will be limited within 30 feet of type 5 streams in accordance with Forest Practice rules. See B.1.d.5.

2. Air

a. What types of emissions to the air would result from the proposal (i.e., dust *from truck traffic, rock mining, crushing or hauling*, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

Minimal amounts of engine exhaust from logging equipment, log trucks, and automobile exhaust will be emitted as a result of this proposal. If landing slash is burned, smoke will be emitted into the air.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

No.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

Landing slash, if burned, will be burned in accordance with the State's Smoke Management Program. A burn permit will be obtained before burning occurs.

Water

a. Surface:

Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. (See timber sale map available at DNR region office, or forest practice application base maps.)

Yes, there are eight type 3, twenty type 4, and twenty-five type 5 waters associated with the proposal. There is also one type-1 stream, which is the South Fork Porter Creek. Iron Creek and the South Fork Porter Creek are type 3 streams. The remaining type 3 streams, as well as all type 4 and 5 streams, all flow into either Iron or the South Fork Porter Creeks. There is a wetland >1 in size on the Old Stock TBS that received a site index buffer.

a) Downstream water bodies:

All streams on the Enterprise TBS flow into Iron Creek which flows to Hell Creek which flows to the South Fork Porter Creek. All streams on the Old Stock and Sulu TBS flow directly into the South Fork Porter Creek which flows to Porter Creek and to the Chehalis River.

b) Complete the following riparian & wetland management zone table:

Wetland, Stream, Lake, Pond, or Saltwater Name (if any)	Water Type	Number (how many?)	Avg RMZ/WMZ Width in Feet (per side for streams)
South Fork Porter Creek	1	1	300 feet
Streams, South Fork Porter Creek, Iron Creek	3	8	175 feet
Streams	4	20	100 feet
Streams	5	25	NA
Wetland	>1 acre (type A)	1	175 feet

 List RMZ/WMZ protection measures including silvicultural prescriptions, road-related RMZ/WMZ protection measures, and wind buffers.

RMZs for this proposal have been designed in accordance with the Department of Natural Resources' current procedures. A 200 foot RMZ was placed along the type 1 stream on the Old Stock TBS. In addition, a 100 foot wind buffer was implemented on this RMZ for a total of 300 feet from the edge of the 100-year flood plain. This wind buffer was included due to the aspect of the RMZ as well as the red alder/western hemlock canopy. Wind buffers were not deemed necessary on any other units. Buffers were measured from the 100-year flood plain. A 30-foot wide equipment limitation zone will protect type 5 streams associated with the proposal. Where feasible, leave trees were located along type 5 streams. One WMZ was implemented for a wetland (1.5 acres) on the Old Stock TBS. This site index WMZ (175 feet) was measured from the delineated edge of the wetland.

Will the project require any work over, in, or adjacent to (within 200 feet) to the described waters? If yes, please describe and attach available plans.

□No ☑Yes (See RMZ/WMZ table above and timber sale map available at DNR region office.)
Description (include culverts):

Logging activities will occur 175 feet from the type 3 streams and one wetland, and 100 feet from the type 4 streams. Cable yarding may also occur over the type 5 streams, but an Equipment Limitation Zone will be utilized to maintain stream function, bank integrity, and decrease possible sediment delivery. Trees in the RMZ may be cut for operational and safety concerns. These trees will be left on site and not removed.

Due to safety and operational constraints felling and bucking may take place in or over type 5 streams. Logs may be yarded across the streams. The 30-foot equipment limitation zone will be observed. Water bars or other mitigation measures will be installed if greater than 10% of the soil is exposed within the zone.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

None

4)	Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. (Include diversions for fish-passage culvert installation.) No Yes, description:
5)	Does the proposal lie within a 100-year floodplain? If so, note location on the site plan. No Yes, describe location:
6)	Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge. No Yes, type and volume:
	Minor amounts of logging slash may enter the above mentioned streams.
7)	Does the sub-basin contain soils or terrain susceptible to surface erosion and/or mass wasting? Yes What is the potential for eroded material to enter surface water? The potential for eroded material to enter surface water due to road and harvest activities is low because of erosion control measures included in the proposal (see B.1.h).
	Porter Creek WAU High Erosion Potential: 21% High Mass Wasting Potential: 5%
	${}^{\star}Soil\ data\ not\ available\ for\ each\ sub-basin.\ Information\ gathered\ from\ the\ \underline{Soils,Erosion,Mass\ Wasting}\ \underline{Report\ for\ WAUs.}$
8)	Is there evidence of changes to the channels in the WAU and sub-basin(s) due to surface erosion or mass wasting (accelerated aggradations, erosion, decrease in large organic debris (LOD), change in channel dimensions)? No Yes, describe changes and possible causes:
	Normally, there are few significant changes associated with peak flows in the WAU or sub-basins. However, in the winters of 2007 and 2009, two 100-year plus events occurred. The rainstorm set rainfall and flood level records in Southwest Washington. The event caused many shallow mass-wasting events. Many stream channels were altered in this event due to extremely high stream flows with accompanying sediment loads and possibly large woody debris delivery. The full extent of this is not known.
9)	Could this proposal affect water quality based on the answers to the questions 1-8 above? \square No \square Yes, explain:
	This proposal is expected to have minimal to no effect on water quality. Items listed in B.1.h and B.3.d will minimize potential sediment delivery to streams. These mitigation elements should limit affects on water quality in relation to the items of concern listed in questions 1-8.
10)	What are the approximate road miles per square mile in the WAU and sub-basin(s)?
	The Porter Creek WAU averages 5.6 miles of road per square mile. Road information is not available on the subbasin level. High miles of road per square mile may be due to other forest management activity in the area.
	Are you aware of areas where forest roads or road ditches intercept sub-surface flow and deliver surface water to streams, rather than back to the forest floor? \square $No \square$ Yes , describe:
11)	Is the proposal within a significant rain-on-snow (ROS) zone? If not, STOP HERE and go to question B-3-a-13 below. Use the WAU or sub-basin(s) for the ROS percentage questions below. □ No ☑ Yes, approximate percent of WAU in significant ROS zone. 20% Approximate percent of sub-basin(s): 46.5%
12)	If the proposal is within the significant ROS zone, what is the approximate percentage of the WAU <u>or</u> subbasin(s) within the significant ROS zone (all ownerships) that is (are) rated as hydrologically mature?
	Sub-basin 6: 99.7%
13)	Is there evidence of changes to channels associated with peak flows in the WAU <u>or</u> sub-basin(s)? \square No \square Yes, describe observations:
	See B.3.a.8 above.
14)	Based on your answers to questions B -3- a -10 through B -3- a -13 above, describe whether and how this proposal, in combination with other past, current, or reasonably foreseeable proposals in the WAU and SAU and SAU contribute to a peak flow impact.
	This proposal may slightly change the timing, duration, and amount of peak flow event. Flow rates may increase slightly during low flow periods due to decreased transpiration and interception.
15)	Is there water resource (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or downslope of the proposed activity that could be affected by changes in surface water amounts, quality, or movements as a result of this proposal? No Yes, possible impacts:
16)	Based on your answers to questions B-3-a-10 through B-3-a-15 above, note any protection measures addressing possible peak flow/flooding impacts.

The following measures will address possible peak flow/flooding impacts:

- Limiting future harvest unit sizes to less than 100 acres according to the 2006 Policy for Sustainable Forests, and following Forest Practices rules regarding green-up policies before harvesting adjacent DNR stands.
- Designating RMZs of 175 feet wide along type 3 streams, 175 feet wide around one wetland, 300 feet along type 1 stream, and 100 feet wide along type 4 streams.
- 3. Retaining 8 leave trees per acre throughout the proposal.

b. Ground Water:

 Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.

No.

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

Minor amounts of oil and other lubricants could be discharged inadvertently as a result of heavy equipment use. All spills are required to be contained and cleaned-up.

- 3) Is there a water resource use (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or down slope of the proposed activity that could be affected by changes in groundwater amounts, timing, or movements as a result this proposal?

 ⊠No □Yes, describe:
 - a) Note protection measures, if any.
- c. Water Runoff (including storm water):
 - Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Storm water runoff will be collected by road ditches and diverted through cross drain culverts onto the forest floor. Culverts will be placed at locations to minimize the amount of water runoff directly entering existing stream channels.

- 2) Could waste materials enter ground or surface waters? If so, generally describe. No.
 - a) Note protection measures, if any.

Equipment use will be limited along streams in accordance with Forest Practice rules. No lubricants will be disposed of onsite. See B.3.a.1.c & B.7.a.2

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:

(See surface water, ground water, and water runoff sections above, questions B-3-a-1-c, B.7.a.2, B-3-a-16, B-3-b-3-a, and B-3-c-2-a.) Control measures have been integrated into the design of this proposal to reduce impacts to any waters.

4. Plants

a. Check or circle types of vegetation found on the site:

✓ deciduous tree:	⊠alder, ⊠maple, □aspen, □cottonwood, □western larch, □birch, □other:
⊠evergreen tree:	∑Douglas fir, ∑grand fir, ☐Pacific silver fir, ☐ponderosa pine, ☐lodgepole pin
	Western hemlock, ☐mountain hemlock, ☐Englemann spruce, ☐Sitka spruce,
	⊠red cedar, □yellow cedar, □other:
⊠shrubs: ⊠hucki	leberry, Salmonberry, Salal, Sother: vine maple, Oregon grape, sword fern
grass	
pasture	
crop or grain	
	□cattail, □buttercup, □bullrush, ☑skunk cabbage, ☑devil's club, □other:
	water lily, eelgrass, milfoil, other:
other types of ve	getation:
□plant communitie	es of concern:

b. What kind and amount of vegetation will be removed or altered? (See answers to questions A-11-a, A-11-b, B-3-a-1-b and B-3-a-1-c. The following sub-questions merely supplement those answers.)

Approximately 10,000 MBF of Douglas-fir, western hemlock, western red cedar and red alder will be removed from the proposal areas. Timber age is approximately 55 years old.

 Describe the species, age, and structural diversity of the timber types immediately adjacent to the removal area. (See landscape/WAU and adjacency maps on the DNR website at: http://www.dnr.wa.gov under "SEPA Center.")

Old Stock: Adjacent stand to the northeast is a 23 year old Douglas-fir plantation that has little structural diversity and is entering the stem exclusion stage. To the west, southwest and northwest is a mature stand of mixed conifer that has primarily a single canopy and is transitioning into the understory reinitiation stage. To the south and southeast is a four year old Douglas-fir plantation.

Enterprise Unit 1: Adjacent stands to the south and east are 51 year old mixed conifer stands in the stem exclusion stage transitioning into the understory reinitation stage. To the north and west are mature stands of mixed conifer that were commercially thinned in 2000 and are currently in the understory reinitiation stage. To the northeast is Enterprise Unit 2.

Enterprise Unit 2: Adjacent stand to the southwest is Enterprise Unit 1. To the north and west are mature stands of mixed conifer that were commercially thinned in 2000 and are currently in the understory reinitiation stage. To the east is a 51 year old stand of mixed conifer in the stem exclusion stage transitioning into the understory reinitation stage.

Enterprise Unit 3: All adjacent stands are comprised of mature mixed conifer that were commercially thinned in 2000 and are currently in the understory reinitiation stage.

<u>Sulu Unit 1:</u> Adjacent stand to the north is a three year old Douglas-fir plantation. The remaining adjacent stands are all comprised of mature mixed conifer that were commercially thinned in 2000 and are currently in the understory reinitiation stage.

<u>Sulu Unit 2:</u> Adjacent stand to the northwest is a three year old Douglas-fir plantation. To the northeast is an 8 year old Douglas-fir plantation. The remaining adjacent stands are all comprised of mature mixed conifer that were commercially thinned in 2000 and are currently in the understory reinitiation stage.

2) Retention tree plan:

Old Stock had a total of 427 trees marked for retention. These trees were marked as clumps ranging from 25 to 50 trees, and as scattered trees and small clumps (10-15 trees). Leave trees were selected to represent species diversity, decadence, and a range of diameters. Clumps are intended to maintain islands of undisturbed forest understory, and to protect water resources not captured by RMZs.

Enterprise Unit one had a total of 395 trees marked for retention. Unit two had 88 trees marked. Unit three had 560 trees marked. Clumps were targeted in areas that were unaffected by the thinning that occurred nine years ago. These clumps still maintain some species and structural diversity. Clumps were also located in areas to protect water quality. The largest most dominant trees were targeted for scattered trees.

Sulu Unit one had a total of 816 trees marked for retention. Unit two had 729 trees marked. The leave tree layout and design is similar to that described above for the Enterprise units.

c. List threatened or endangered *plant* species known to be on or near the site.

None Found in Database Search.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

Conifer seedlings will be planted within two years after harvest. RMZs and clumped retention trees will preserve areas of existing vegetation. Though disturbed, native plants such as salal, ferns, and Oregon grape will remain on site and will later thrive within the plantation.

5. Animal

a.	Circle or check any birds animals or unique habitats which have been observed on or near the site or are known to be on or near the site
	birds: ⊠hawk, ⊠heron, ⊠eagle, ⊠songbirds, □pigeon, □other: mammals: ⊠deer, ⊠bear, ⊠elk, ⊠beaver, □other: fish: □bass, ⊠salmon, ⊠trout, □herring, □shellfish, □other: unique habitats: □talus slopes, □caves, □cliffs, □oak woodlands, □balds, □mineral springs

b. List any threatened or endangered species known to be on or near the site (include federal- and state-listed species)

Bull Trout: This sale is located within an area of potential bull trout habitat.

c.	Is the site part of a migration	route? If so, explain.	
	$\boxtimes Pacific flyway$	Other migration route:	Explain if any boxes checked:

This proposal is located in the Pacific flyway, which is part of the Pacific Northwest forests. The area for this proposal is not generally the type of area used for resting or feeding by migratory waterfowl. Many Neo-tropical birds are closely associated with riparian areas, cliffs, snags and structurally unique trees. Riparian areas and special habitats are protected through implementation of DNR's Habitat Conservation Plan.

d. Proposed measures to preserve or enhance wildlife, if any:

Retention trees along flowing waters maintain water quality by providing shade, bank stability, and wildlife habitat including Bull Trout habitat. Retention trees also serve as perches and nest sites and will serve as ecological niches for wildlife. Larger diameter trees that have large limbs, open crowns, and broken tops will be left to preserve current habitat needs and provide future habitat opportunities for many species. These trees will become snags and retention trees in future stands. Species diversity was also considered when selecting retention trees to preserve the overall biodiversity of the unit. The following activities have been incorporated into this proposal to enhance habitat opportunities:

- Riparian Management Zone averaging 300 feet wide is designated along the type 1 stream.
- Riparian Management Zones averaging 175 feet wide are designated along type 3 streams.
- Minimum Riparian Management Zones 100 feet wide are designated along the type 4 streams.
- 30 foot equipment limitation zones around all type-5 waters.
- RMZs in the proposal will help maintain water quality; provide migratory corridors for wildlife; and
 maintain habitat for fish, reptiles, and other riparian obligate species.

Note existing or proposed protection measures, if any, for the complete proposal described in question A-11.
 Species /Habitat: riparian dependent species
 Species /Habitat: upland dependent species
 Protection Measures: A minimum of eight leave trees per acre, clumped and scattered throughout the proposal.

6. Energy and Natural Resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Does not apply.

Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

Does not apply.

7. Environmental Health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

Minimal hazards incidental to operating heavy machinery such as the risk of fire or small amounts of oil and other lubricants accidentally discharged as a result of heavy equipment use.

Describe special emergency services that might be required.

There are not any special emergency services required at this time. Pump trucks and/or pump trailers will be required on site during fire season.

Proposed measures to reduce or control environmental health hazards, if any:

Any spill that may be a threat to human health or the environment shall be reported immediately to the Department of Ecology and the Contract Administrator. Other spills shall be reported to the Contract Administrator. All spills are required to be contained and cleaned-up. Fuel tanks and other containers of hazardous materials shall be managed to prevent any drips, leaks or larger spills. Equipment seals, pressure lines, and other potential leak sources shall be maintained in good working condition to eliminate oil, hydraulic fluid, and other leaks.

Equipment maintenance activities, such as oil changes, shall be undertaken so that no oil or other hazardous materials reach the ground. Filters, batteries, and other equipment waste shall be deposited in barrels or otherwise temporarily stored to prevent the leaking of oil, acid, or other hazardous liquids onto the ground.

No oil or lubricants will be disposed of on site. Fire tools and equipment will be kept on site during fire season. The cessation of operations may occur during periods when the risk of fire is unacceptably high.

b. Noise

What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

None.

2) What types and levels of noise would be created by or associated with the project on a short-term or long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from this site.

Small levels of noise will be produced by equipment during the logging operations. The hours of operation will be approximately 0600 hours to 1700 hours. Noise will not be long-term.

3) Proposed measures to reduce or control noise impacts, if any:

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties? (Site includes the complete proposal, e.g. rock pits and access roads.)

Timber production and forest management activities.

- b. Has the site been used for agriculture? If so, describe. No.
- Describe any structures on the site. None.
- d. Will any structures be demolished? If so, what? No.
- e. What is the current zoning classification of the site? Forest Land.
- f. What is the current comprehensive plan designation of the site? Forestry.

- f. What is the current comprehensive plan designation of the site? Forestry.
- g. If applicable, what is the current shoreline master program designation of the site? N/A.
- h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify. No.
- Approximately how many people would reside or work in the completed project? None.
- Approximately how many people would the completed project displace? None.
- Proposed measures to avoid or reduce displacement impacts, if any: N/A.
- Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

This proposal has been designed in accordance with the Final HCP (September 1997), the Riparian Forest Restoration Strategy, Policy for Sustainable Forests and current Forest Practice regulations as they apply in conjunction with the HCP and are consistent with current land use classifications.

9. Housing

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing. None.
- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing. None.
- c. Proposed measures to reduce or control housing impacts, if any: None.

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principle exterior building material(s) proposed?

N/A

- b. What views in the immediate vicinity would be altered or obstructed? Views from adjacent forest roads may be altered.
 - Is this proposal visible from a residential area, town, city, developed recreation site, or a scenic vista?
 No ∑Yes, viewing location: There is a hiking trail in a unit adjacent to the Old Stock TBS. There is also a hiking trail through unit one of the Enterprise TBS & adjacent to Unit 3 of Enterprise.
 - 2) Is this proposal visible from a major transportation or designated scenic corridor (county road, state or interstate highway, US route, river, or Columbia Gorge SMA)?
 No ☐ Yes, scenic corridor name:
 - 3) How will this proposal affect any views described in 1) or 2) above? Views from these trails will be affected by the proposal.
- c. Proposed measures to reduce or control aesthetic impacts, if any:

The retention tree plan discussed in 4.B.2 will mitigate the visual effects of the regeneration harvest.

11. Light and Glare

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur? None.
- b. Could light or glare from the finished project be a safety hazard or interfere with views? No.
- c. What existing off-site sources of light or glare may affect your proposal? None.
- Proposed measures to reduce or control light and glare impacts, if any: None.

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?

Informal recreation includes hunting, berry picking and other informal recreation activities. The hiking trails described in 10.b.1 above are also in the immediate vicinity of the proposal.

b. Would the proposed project displace any existing recreational uses? If so, describe:

Recreation will be temporarily displaced during road building and harvest activities.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

Leave tree clumps were placed along the trail that transects Enterprise Unit 1 to mitigate damage to the trail as well as to protect signs and markers associated with the trail. The trail associated with the Old Stock TBS requires the posting of "Trail Closed" signs during harvest operations.

13. Historic and Cultural Preservation

a. Are there any places or objects listed on, or proposed for national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

None known.

 Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

Not Applicable.

Proposed measures to reduce or control impacts, if any:
 (Include all meetings or consultations with tribes, archaeologists, anthropologists or other authorities.)

In the event that any additional unknown archaeological resources are encountered, ground disturbing activities would be halted and our Agency's Archaeologist will be contacted to survey the site and develop a Site Protection Plan.

14. Transportation

Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site
plans, if any.

Forest roads lead to Ray Road, which leads to Mox Chehalis Road and State Route 12.

Is it likely that this proposal will contribute to an <u>existing</u> safety, noise, dust, maintenance, or other transportation impact problem(s)?

No.

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

No.

c. How many parking spaces would the completed project have? How many would the project eliminate?

Does not apply.

- d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private). See A.11.C
 - 1) How does this proposal impact the overall transportation system/circulation in the surrounding area, if at all?

This proposal will increase the traffic temporarily, by up to 20 vehicle and log truck round trips per day, but should not affect the overall transportation system in the area.

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

No.

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

Up to 20 round trips per day could occur during road building and logging operations. After harvest activities are complete, occasional vehicular trips to the site will be generated for future forest management purposes.

g. Proposed measures to reduce or control transportation impacts, if any:

None.

15. Public Services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

No.

Proposed measures to reduce or control direct impacts on public services, if any.

None.

16. Utilities

 Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

None

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

Not applicable.

The above answers are true and complete to the them to make its decision.	MD PSF	
Completed by Andrew Geissler	Forester 1	Date: 4/2/09
	Title	
Reviewed by: American A. American	Para	Date: 10/22/0

C.

SIGNATURE

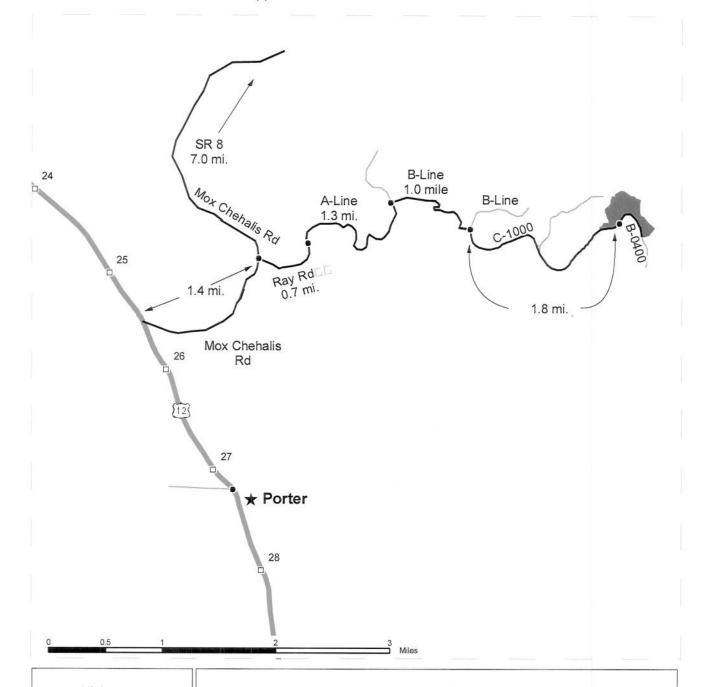
DRIVING MAP

SALE NAME: OLD STOCK
AGREEMENT#: 30-085023
TOWNSHIP(S): T17R04W, T17R05W
TRUST(S): State Forest Board Purchase(2)

REGION:

Pacific Cascade Region **GRAYS HARBOR**

COUNTY(S): GRAYS ELEVATION RGE: 548-969



Highways

Haul Route

- Milepost Marker
- Distance Indicator



DRIVING DIRECTIONS:

FROM US 12 (AT MILEPOST 25.5) TURN EAST ON MOX CHEHALIS RD AND FOLLOW FOR 1.4 MILES.
TURN EAST ON RAY RD AND FOLLOW FOR 0.7 MILES WHERE IT CHANGES TO THE A-LINE. CONTINUE ON THE A-LINE FOR ANOTHER 1.3 MILES TO THE B-LINE JUNCTION.
TURN RIGHT ONTO THE B-LINE AND FOLLOW FOR 1 MILE TO THE C-1000 JUNCTION.
TAKE A SOFT RIGHT ONTO THE C-1000 AND FOLLOW FOR 1.8 MILES TO UNIT ONE ON THE B-0400 RD.

Prepared By: csrr490

Creation Date: 6/16/2009

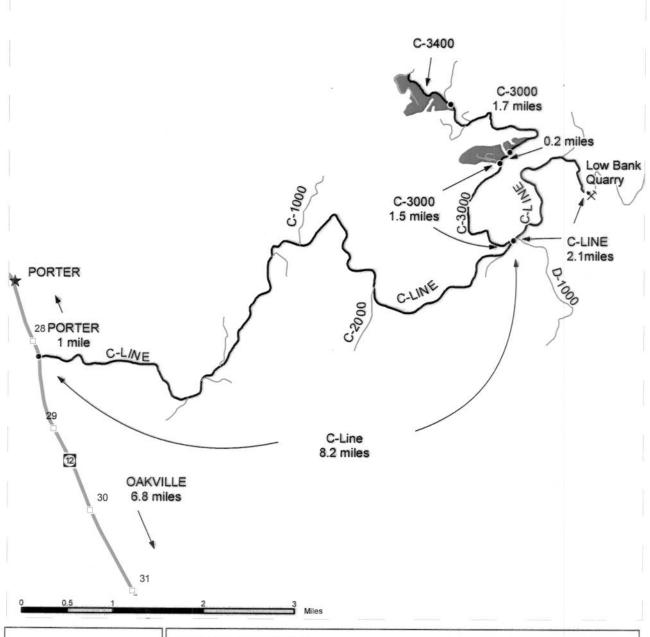
Modification Date: 10/27/2009



SALE NAME: ENTERPRISE AGREEMENT#: 30-085024 TOWNSHIP(S): T17R04W

TRUST(S): State Forest Board Purchase(2), Common School and Indemnity(3)

Pacific Cascade Region GRAYS HARBOR REGION: Pacific Ca COUNTY(S): GRAYS H ELEVATION RGE: 789-1728



Highways

Haul Route

Milepost Marker

Distance Indicator

Sale Area

DRIVING DIRECTIONS:

FROM US 12 (AT MILEPOST 28) TURN EAST ON C-LINE AND FOLLOW FOR 8.2 MILES TO C-3000. TURN NORTH ON C-3000 AND FOLLOW FOR 1.5 MILES TO UNITS 1 & 2. CONTINUE ON C-3000 FOR 1.7 MILES TO C-3400 AND UNIT 3.

Prepared By: tfie490

Creation Date: 6/8/2009

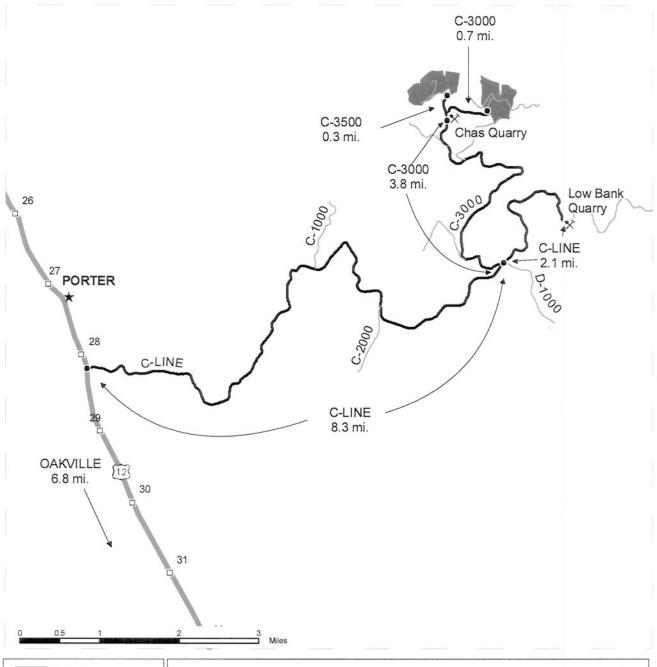
Modification Date: 10/15/2009



DRIVING MAP

SALE NAME: SULU
AGREEMENT#: 30-085000
TOWNSHIP(S): T17R4W
TRUST(S): State Fores REGION: Pacific Ca COUNTY(S): GRAYS H ELEVATION RGE: 679-1647 Pacific Cascade Region GRAYS HARBOR

State Forest Board Purchase(2), Common School and Indemnity(3), Capitol Grant(7)



Sale Area

Haul Route

Highways

- Milepost Markers
- Distance Indicator

DRIVING DIRECTIONS:

FROM US 12 (AT MILEPOST 28) TURN EAST ON C-LINE AND FOLLOW FOR 8.3 MILES TO C-3000. TURN NORTH ON C-3000 AND FOLLOW FOR 3.8 MILES TO C-3500.

UNIT 1: TURN NORTH ON C-3500 AND FOLLOW FOR 0.3 MILES TO UNIT 1.

UNIT 2:

CONTINUE NORTH ON C-3000 AND FOLLOW FOR 0.7 MILES TO UNIT 2.

Prepared By: jhom490

Creation Date: 6/17/2009

Modification Date: 10/27/2009 cs

